

**Abstract**

A novel low voltage wide ratio current mirror circuit is disclosed. The circuit comprises an n times current mirror having an input port for receiving an input current and an m times current mirror coupled in series to the n times current mirror for resulting in an output current of (n times m the input current) being provided to a load. The novel circuit provides significant improvements in precision in output current for used with a low voltage PA without incurring an overhead of quiescent current. A novel low voltage wide ratio current mirror circuit in accordance with a second embodiment of the invention includes a voltage swing reduction circuit in order to provide increased stability thereto. In additional embodiments of the invention, the load is a differential amplification stage for providing differential amplification to differential RF input signals received at first and second RF input ports thereof.